

Brad Cooley
Southdown, Inc.
1200 Smith Street, Suite 2400
Houston, Tx 77002

Dear Brad Cooley:

**Re: Exempt Construction and Operation Status,
129-12430-00045**

The application from Southdown, Inc., received on June 27, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following Cement Distribution Terminal, to be located at 3301 Port East/West Road, Mount Vernon, IN 47620, is classified as exempt from air pollution permit requirements:

- (a) One (1) Pneumatic Barge Unloading System, identified as EU 01, with a maximum capacity of 250 tons per hour, unloading material to one (1) cement silo identified as EU 02, with a maximum storage of 3500 tons, using Baghouse DC-1 as control, and exhausting to stack S-1.
- (b) One (1) Truck Loading System, identified as EU 03, with a maximum capacity of 400 tons per hour, using Baghouse DC-2 as control, and exhausting to stack S-2.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Pursuant to 6-3-2 (Process Operations: Particulate Emission Limitations), the allowable PM emission rate from the silo loading and unloading processes shall not exceed 66.31 pounds per hour when operating at a process weight rate of 400 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (3) Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust will not escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).
- (4) Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plan), a Preventive Maintenance Plan is required for the storage silo, barge unloading and truck loading operations because there is a control device and the allowable PM emission exceeds ten (10) pounds per hour.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

GS

cc: File – Posey County
Posey County Health Department
Air Compliance – Scott Anslinger
Southwest Regional Office
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Southdown, Inc.
Source Location: Bluff Road, Southwinds Maritime Center, Mount Vernon, Indiana
County: Posey
SIC Code: 5032
Operation Permit No.: 129-12430-00045
Permit Reviewer: Gurinder Saini

The Office of Air Management (OAM) has reviewed an application from Southdown, Inc. relating to the construction and operation of Cement Distribution Terminal.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) Pneumatic Barge Unloading System, identified as EU 01, with a maximum capacity of 250 tons per hour, unloading material to one (1) cement silo identified as EU 02, with a maximum storage of 3500 tons, using Baghouse DC-1 as control, and exhausting to stack S-1.
- (b) One (1) Truck Loading System, identified as EU 03, with a maximum capacity of 400 tons per hour, using Baghouse DC-2 as control, and exhausting to stack S-2.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

This is the first Air Permit Application from this source.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the Baghouses be considered as an integral part of the Cement handling process:

- (a) The Barge unloading equipment and Truck loading equipment are pneumatically operated and hence baghouses DC-1 and DC-2 are considered integral to the process.

IDEM, OAM has evaluated the justifications and agreed that the Baghouses DC-1 and DC-2 will be considered as an integral part of the Barge Unloading and Truck loading process respectively. Therefore, the permitting level will be determined using the potential to emit after the Baghouses DC-1 and DC-2 operating at 99% removal efficiency. Operating conditions in the proposed permit will specify that these Baghouses DC-1 and DC-2 will operate at all times when the Barge unloading or Truck Loading processes are in operation.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S-1	Barge Unloading	115	TBD*	9000	Ambient
S-2	Truck Loading	30	TBD*	1900	Ambient

*TBD – To be determined

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on June 27, 2000.

Emission Calculations

See Appendix A page 1 of 1 of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.

Pollutant	Potential To Emit (tons/year)
PM	7.5
PM-10	5.1
SO ₂	-
VOC	-
CO	-
NO _x	-

- (a) The potential to emit any regulated pollutant is less than ten (10) tons per year. Thus, pursuant to 326 IAC 2-1.1-3, an exemption will be issued.

- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Posey County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Posey County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Posey County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	7.5
PM10	5.1
SO ₂	-
VOC	-
CO	-
NO _x	-
Single HAP	-
Combination HAPs	-

- (a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.670, Subpart OOO, because as per the definition of Nonmetallic Mineral Processing facility, the processing of nonmetallic minerals must include crushing or grinding.

In the revisions to Subpart OOO, published in the June 9, 1997 Federal Register on page 31354, the comments section specifically clarifies that EPA did not intend to regulate stand-alone distribution operations at plants that have no crushers. Plants that do not employ crushing or grinding, by definition, are not considered nonmetallic mineral processing plants and thus are not subject to Subpart OOO.

Therefore, since this source only distributes cement, NSPS Subpart OOO is not applicable to this source.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

A Preventive Maintenance Plan is required for the storage silo, barge unloading and truck loading operations because there is a control device and the allowable PM emission exceeds ten (10) pounds per hour.

326 IAC 2-2 (PSD)

This source is not one of the 28 major PSD source categories. It is not considered a Portland cement plant because the plant does not manufacture Portland cement. The source merely distributes Portland cement without any processing.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because no criteria pollutants are emitted above 100 tons per year level.

326 IAC 6-3-2 (Process Operations: Particulate Emission Limitations)

The allowable PM emission rate from the silo loading and unloading processes shall not exceed 66.31 pounds per hour when operating at a process weight rate of 400 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 6-4 (Fugitive Dust Emissions)

Fugitive dust will not escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

State Rule Applicability - Individual Facilities

There are no State Rules applicable to these facilities.

Conclusion

The construction and operation of this Cement Distribution Terminal shall be subject to the conditions of the attached proposed Exemption Permit 129-12430-00045.

Appendix A: Potential Emission Calculations

Company Name: Southdown, Inc.
Address City IN Zip: 3301 Port East/West Road, Mount Vernon, IN 47620
CP: 129-12430
Pit ID: 129-00045
Reviewer: Gurinder Saini
Date: 12-Jul-00

Emission Unit	Barge Unloading		Silo Filling		Control Efficiency (%)	Controlled	Controlled
	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)		Emission Rate (lbs/hr)	Emission Rate (tons/yr)
PM	250	0.30	75.00	328.5	99.0%	0.750	3.29
PM-10	250	0.15	37.500	164.3	99.0%	0.375	1.643

AIRS SCC 3-05-006-12

Emission Unit	Truck Loading		Silo Unloading		Control Efficiency (%)	Controlled	Controlled
	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)		Emission Rate (lbs/hr)	Emission Rate (tons/yr)
PM	400	0.24	96.00	420.5	99.0%	0.960	4.20
PM-10	400	0.20	80.00	350.4	99.0%	0.800	3.504

AIRS SCC 3-05-006-19

Summary

	Before Controls PM (tons/yr)	After Controls PM	Before Controls PM-10 (tons/yr)	After Controls PM-10 (tons/yr)
Barge Unloading	328.500	3.285	164.250	1.643
Truck Loading	420.480	4.205	350.400	3.504
Subtotal	749.0	7.490	514.7	5.147